

I claim:

1. A liquid seal means comprising:
  - a. a bent tube of U shape, such U-tube having one arm connected to the pipe Collecting all the vented gas released from the plant, and other arm connected to a liquid holder;
  - b. a piping, fitted with a non-return valve, connecting the bottom of the liquid holder to the bottom of the U-tube;
  - c. the top of the liquid holder connected to the piping leading to the flare stack; wherein there is provided a piping connecting the tip of one arm of the U-tube to the pipe connecting top of the liquid holder; the U-tube and the liquid holder forming a structure so as to form the only passage available for the gas to escape from the plant to the flare stack; such gas escaping from the plant to the flare only when the liquid in the said U- tube has been completely displaced into the liquid holder due to the pressure applied by such escaping gas.
2. A device including the liquid seal means as claimed in a Claims 1 comprising of:
  - a. a pipe means collecting all the gas vented from across the plant process carrying the said gas to knock out drum (KOD) means;
  - b. a liquid seal means and piping blind means installed between the said KOD means and a flare stack means;
  - c. a pipe means originating from between the said KOD means and the said liquid seal means carrying the gas to a recovery system means;
  - d. a pipe means collecting all the gas vented from across the second process and carrying such gas to a second KOD means;
  - e. a second liquid seal means and piping blind means installed between the said second KOD means and a second flaring means;
  - f. a second pipe means originating from between the said second KOD means and the second liquid seal means carrying the gas to the recovery means; such second pipe means provided with a orifice to control the flow of gas from within it to the said recovery means.
3. A liquid seal means as claimed in claim 2 wherein the said second liquid seal means is capable of withstanding higher pressure than the said first liquid seal means.
4. A liquid seal means as claimed in claim 2 wherein there is a unitary gas recovery means for plurality of flaring systems.

